01-03-00

A

jc672 U.S. PTO
12/30/99

Practitioner's Docket No. 944-001.022 **PATENT**

Preliminary Classification:

Proposed Class:

Subclass:

NOTE: "All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand corner of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129.'" M.P.E.P. § 601, 7th ed.

JC542 U.S. PTO
09/475359
12/30/99

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Harri Hellsten and Kari Kivisto

WARNING: *37 C.F.R. § 1.41(a)(1) points out:*

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

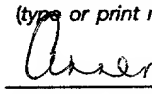
"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors."

For (title): DEDICATED APPLICATIONS FOR USER STATIONS AND METHODS FOR DOWNLOADING DEDICATED APPLICATIONS TO USER STATIONS

CERTIFICATION UNDER 37 C.F.R. § 1.10*
(Express Mail label number is mandatory.)
(Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date December 30, 1999, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number EL508859496US, addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Annemarie Lazor
(type or print name of person mailing paper)



Signature of person mailing paper

WARNING: *Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.*

***WARNING:** Each paper or fee filed by "Express Mail" **must** have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).*
*"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will **not** be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.*

1. Type of Application

This new application is for a(n)

(check one applicable item below)

☒ Original (nonprovisional)

☐ Design

☐ Plant

WARNING: ***Do not*** *use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § 371(c)(4), unless the International Application is being filed as a divisional, continuation or continuation-in-part application.*

WARNING: ***Do not*** *use this transmittal for the filing of a provisional application.*

NOTE: If one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.

☐ Divisional.

☐ Continuation.

☐ Continuation-in-part (C-I-P).

2. Benefit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. § 112. Each prior application must also be:

(i) An international application entitled to a filing date in accordance with PCT Article 11 and designating the United States of America; or

(ii) Complete as set forth in § 1.51(b); or

(iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or

(iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: *If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120, 121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.*

WARNING: *When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application* ***must*** *be filed prior to the Saturday, Sunday, or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).*

☐ The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

3. Papers Enclosed

A. Required for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 1.153 (Design) Application

17 Pages of specification

3 Pages of claims

4 Sheets of drawing

WARNING: ***DO NOT*** *submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments on proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).*

NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page . . ." 37 C.F.R. § 1.84(c)).

(complete the following, if applicable)

☐ The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. § 1.84(b).

☐ formal

☒ informal

B. Other Papers Enclosed

____ Pages of declaration and power of attorney

1 Pages of abstract

____ Other

4. Additional papers enclosed

☐ Amendment to claims

☐ Cancel in this applications claims _____ before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)

☐ Add the claims shown on the attached amendment. (Claims added have been numbered consecutively following the highest numbered original claims.)

☐ Preliminary Amendment

☐ Information Disclosure Statement (37 C.F.R. § 1.98)

☐ Form PTO–1449 (PTO/SB/08A and 08B)

☐ Citations

☐ Declaration of Biological Deposit

☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.

☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative

☐ Special Comments

☐ Other

5. Declaration or oath (including power of attorney)

NOTE: A newly executed declaration is not required in a continuation or divisional application provided that the prior nonprovisional application contained a declaration as required, the application being filed is by all or fewer than all the inventors named in the prior application, there is no new matter in the application being filed, and a copy of the executed declaration filed in the prior application (showing the signature or an indication thereon that it was signed) is submitted. The copy must be accompanied by a statement requesting deletion of the names of person(s) who are not inventors of the application being filed. If the declaration in the prior application was filed under § 1.47, then a copy of that declaration must be filed accompanied by a copy of the decision granting § 1.47 status or, if a nonsigning person under § 1.47 has subsequently joined in a prior application, then a copy of the subsequently executed declaration must be filed. See 37 C.F.R. §§ 1.63(d)(1)-(3).

NOTE: A declaration filed to complete an application must be executed, identify the specification to which it is directed, identify each inventor by full name including family name and at least one given name, without abbreviation together with any other given name or initial, and the residence, post office address and country or citizenship of each inventor, and state whether the inventor is a sole or joint inventor. 37 C.F.R. § 1.63(a)(1)-(4).

NOTE: "The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(i) is filed supplying or changing the name or names of the inventor or inventors." 37 C.F.R. § 1.41(a)(1).

☐ Enclosed

Executed by

(check **all** *applicable boxes)*

☐ inventor(s).

☐ legal representative of inventor(s). 37 C.F.R. §§ 1.42 or 1.43.

☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.

☐ This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F.R. § 1.47 is also attached. *See* item 13 below for fee.

☒ Not Enclosed.

NOTE: Where the filing is a completion in the U.S. of an International Application or where the completion of the U.S. application contains subject matter in addition to the International Application, the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.

☐ Application is made by a person authorized under 37 C.F.R. § 1.41(c) on behalf of *all* the above named inventor(s).

(The declaration or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).

☐ Showing that the filing is authorized.
(not required unless called into question. 37 C.F.R. § 1.41(d))

6. Inventorship Statement

WARNING: *If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.*

The inventorship for all the claims in this application are:

☒ The same.

or

☐ Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,

☐ is submitted.

☐ will be submitted.

7. Language

NOTE: An application including a signed oath or declaration may be filed in a language other than English. An English translation of the non-English language application and the processing fee of $130.00 required by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within such time as may be set by the Office. 37 C.F.R. § 1.52(d).

☒ English

☐ Non-English

☐ The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).

8. Assignment

☐ An assignment of the invention to _____

_____

☐ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.

☐ will follow.

NOTE: "If an assignment is submitted with a new application, send two separate letters-one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).

WARNING: *A newly executed "CERTIFICATE UNDER 37 C.F.R. § 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993, 1150 O.G. 62-64.*

9. Certified Copy

Certified copy(ies) of application(s)

Country	Appln. No.	Filed
Country	Appln. No.	Filed
Country	Appln. No.	Filed

from which priority is claimed

☐ is (are) attached.

☐ will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 C.F.R. § 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. § 120 is itself entitled to priority from a prior foreign application, then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 C.F.R. § 1.16)

A. ☐ Regular application

CLAIMS AS FILED				
Number filed		Number Extra	Rate	Basic Fee 37 C.F.R. § 1.16(a) ~~$760.00~~ 690
Total Claims (37 C.F.R. § 1.16(c))	16 − 20 =	−0−	× $ 18.00	—
Independent Claims (37 C.F.R. § 1.16(b))	3 − 3 =	−0−	× $ 78.00	—
Multiple dependent claim(s), if any (37 C.F.R. § 1.16(d))			+ $260.00	

☐ Amendment cancelling extra claims is enclosed.

☐ Amendment deleting multiple-dependencies is enclosed.

☐ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 C.F.R. § 1.16(d).

Filing Fee Calculation $ 690.00

B. ☐ Design application ($310.00—37 C.F.R. § 1.16(f))

Filing Fee Calculation $_____

C. ☐ Plant application
($480.00—37 C.F.R. § 1.16(g))

Filing fee calculation $_____

11. Small Entity Statement(s)

☐ Statement(s) that this is a filing by a small entity under 37 C.F.R. § 1.9 and 1.27 is (are) attached.

WARNING: *"Status as a small entity must be specifically established in each application or patent in which the status is available and desired. Status as a small entity in one application or patent does not affect any other application or patent, including applications or patents which are directly or indirectly dependent upon the application or patent in which the status has been established. The refiling of an application under § 1.53 as a continuation, division, or continuation-in-part (including a continued prosecution application under § 1.53(d)), or the filing of a reissue application requires a new determination as to continued entitlement to small entity status for the continuing or reissue application. A nonprovisional application claiming benefit under 35 U.S.C. § 119(e), 120, 121, or 365(c) of a prior application, or a reissue application may rely on a statement filed in the prior application or in the patent if the nonprovisional application or the reissue application includes a reference to the statement in the prior application or in the patent or includes a copy of the statement in the prior application or in the patent and status as a small entity is still proper and desired. The payment of the small entity basic statutory filing fee will be treated as such a reference for purposes of this section." 37 C.F.R. § 1.28(a)(2).*

WARNING: *"Small entity status must not be established when the person or persons signing the . . . statement can **unequivocally** make the required self-certification." M.P.E.P., § 509.03, 6th ed., rev. 2, July 1996 (emphasis added).*

(complete the following, if applicable)

☐ Status as a small entity was claimed in prior application

_____ / _____, filed on _____, from which benefit is being claimed for this application under:

35 U.S.C. § ☐ 119(e),
☐ 120,
☐ 121,
☐ 365(c),

and which status as a small entity is still proper and desired.

☐ A copy of the statement in the prior application is included.

Filing Fee Calculation (50% of **A, B** or **C** above)

$_____

NOTE: Any excess of the full fee paid will be refunded if small entitiy status is established and a refund request are filed within 2 months of the date of timely payment of a full fee. The two-month period is not extendable under § 1.136. 37 C.F.R. § 1.28(a).

12. Request for International-Type Search (37 C.F.R. § 1.104(d))

(complete, if applicable)

☐ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13. Fee Payment Being Made at This Time

☒ Not Enclosed

☐ No filing fee is to be paid at this time.
(This and the surcharge required by 37 C.F.R. § 1.16(e) can be paid subsequently.)

☐ Enclosed

☐ Filing fee $ _____

☐ Recording assignment ($40.00; 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION".) $ _____

☐ Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached ($130.00; 37 C.F.R. §§ 1.47 and 1.17(i)) $ _____

☐ For processing an application with a specification in a non-English language ($130.00; 37 C.F.R. §§ 1.52(d) and 1.17(k)) $ _____

☐ Processing and retention fee ($130.00; 37 C.F.R. §§ 1.53(d) and 1.21(l)) $ _____

☐ Fee for international-type search report ($40.00; 37 C.F.R. § 1.21(e)) $ _____

NOTE: 37 C.F.R. § 1.21(l) establishes a fee for processing and retaining any application that is abandoned for failing to complete the application pursuant to 37 C.F.R. § 1.53(f) and this, as well as the changes to 37 C.F.R. §§ 1.53 and 1.78(a)(1), indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid, or the processing and retention fee of § 1.21(l) must be paid, within 1 year from notification under § 53(f).

Total fees enclosed $ 0

14. Method of Payment of Fees

☐ Check in the amount of $_____

☐ Charge Account No. _____ in the amount of $_____.
A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 C.F.R. § 1.22(b).

15. Authorization to Charge Additional Fees

WARNING: *If no fees are to be paid on filing, the following items should not be completed.*

WARNING: *Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.*

☐ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. _____:

☐ 37 C.F.R. § 1.16(a), (f) or (g) (filing fees)

☐ 37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

☐ 37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

☐ 37 C.F.R. § 1.17(a)(1)–(5) (extension fees pursuant to § 1.136(a)).

☐ 37 C.F.R. § 1.17 (application processing fees)

NOTE: ". . .A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).

NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . the issue fee. . . " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

15. Authorization to Charge Additional Fees

WARNING: *If no fees are to be paid on filing, the following items should not be completed.*

WARNING: *Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.*

☐ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. _____:

☐ 37 C.F.R. § 1.16(a), (f) or (g) (filing fees)

☐ 37 C.F.R. § 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 C.F.R. § 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

☐ 37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

☐ 37 C.F.R. § 1.17(a)(1)–(5) (extension fees pursuant to § 1.136(a)).

☐ 37 C.F.R. § 1.17 (application processing fees)

NOTE: ". . .A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of the fee set forth in § 1.17(a) will also be treated as a constructive petition for an extension of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).

☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 C.F.R. § 1.311(b).

NOTE: 37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlement to small entity status must be filed in the application . . . prior to paying, or at the time of paying, . . . the issue fee. . . " From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

16. Instructions as to Overpayment

NOTE: ". . . Amounts of twenty-five dollars or less will not be returned unless specifically requested within a reasonable time, nor will the payer be notified of such amounts; amounts over twenty-five dollars may be returned by check or, if requested, by credit to a deposit account." 37 C.F.R. § 1.26(a).

☐ Credit Account No. _____

☐ Refund

Express Mail Label No. EL 636 747 248 US

SIGNATURE OF PRACTITIONER

Reg. No. 31,391

Francis J. Maguire

(type or print name of attorney)

Tel. No. (203) 261-1234

WARE, FRESSOLA, VAN DER SLUYS & ADOLPHSON LLP
Bradford Green, Building Five

P.O. Address

Customer No. 004955

755 Main St., P.O. Box 224
Monroe, CT 06468

☐ **Incorporation by reference of added pages**

(check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)

☐ Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed

Number of pages added _____

☐ Plus Added Pages for Papers Referred to in Item 4 Above

Number of pages added _____

☐ Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.

Number of pages added _____

☐ Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added _____

☒ **Statement Where No Further Pages Added**

(if no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item)

☒ This transmittal ends with this page.

Practitioner's Docket No. 944-001.022 ***PATENT***

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hellsten et al.
Application No.: 0 /To be assigned Group No.:
Filed: herewith Examiner:
For: DEDICATED APPLICATIONS FOR USER STATIONS AND METHODS FOR DOWNLOADING DEDICATED APPLICATIONS TO USER STATIONS

Assistant Commissioner for Patents
Washington, D.C. 20231

EXPRESS MAIL CERTIFICATE

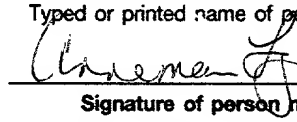
"Express Mail" label number EL508859496US

Date of Deposit December 30,1999

I hereby state that the following *attached* paper or fee
Specification - 17 pages
Claims - 5 pages
Drawings - 4 (informal)
Abstract - 1 page(s)
Self Addressed Stamped Post Card

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10, on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Annemarie Lazor
Typed or printed name of person mailing paper or fee



Signature of person mailing paper or fee

NOTE: The label number need not be placed on each page. It should, however, be placed on the first page of each separate document, such as, a new application, amendment, assignment, and transmittal letter for a fee, along with the certificate of mailing by "Express Mail." Although the label number may be on checks, such a practice is not required. In order not to deface formal drawings it is suggested that the label number be placed on the back of each formal drawing or the drawings be accompanied by a set of informal drawings on which the label number is placed.

(Express Mail Certificate [8-3])

944-001.022

U.S. Patent Application of

Harri Hellstén and Kari Kivisto

relating to a

DEDICATED APPLICATIONS FOR USER STATIONS AND METHODS FOR DOWNLOADING DEDICATED APPLICATIONS TO USER STATIONS

Express Mail No. EL 508859496US

DEDICATED APPLICATIONS FOR USER STATIONS AND METHODS FOR DOWNLOADING DEDICATED APPLICATIONS TO USER STATIONS

FIELD OF THE INVENTION

This invention relates in general to the field of user stations including, but not limited to, mobile phones and personal computers, and more precisely, to methods of downloading applications such as software to user stations or user equipment such as mobile stations, personal computers, smart phones and/or communicators.

BACKGROUND OF THE INVENTION

In the future, many types of applications including software will be downloadable to user stations such as mobile stations, personal computers and cellular phones in a manner that is largely unnoticeable to the user because the applications will be automatically downloadable and executable, and will require no special effort by the user to load and execute. This will be possible while also preserving copy-protection measures of the application and while also automatically routing billing information to appropriate authorities. Therefore, the user will simply place an order for an application, and all other steps will be performed automatically. This is roughly comparable to the present computer software business wherein it is possible to download executable applications from the Internet for example. However, there is a great problem with software piracy in the traditional software industry. The present invention is directed towards preventing illegal use of

applications for user stations such as mobile stations and personal computers and is also directed towards the direct delivery and distribution of executable applications directly to the user of the user stations.

More specifically, in reference to the prior art, it is known to use copy protection of personal computer (PC) software distributed on diskettes by providing a unique identification code (ID) stored in read only memory (ROM) of a personal computer in which the software on the diskette is to be used. This personal computer ID is accessible to the user of the computer. A vendor who wishes to protect his diskette-distributed software from illegal copying or use provides a source ID on the diskette. The personal computer ID is used with the source ID on the distributed diskette to produce an encoded check word, using any available encryption modality. The check word is generated and written onto the distributed diskette during installation and copies onto all backup versions made by the user's personal computer. Prior to each use of the program, the software on the diskette uses the personal computer and the source IDs and check word to verify that the software is being used on the same personal computer on which it was installed. A disadvantages of this method is reliance upon physically sending a disk to the user from the vendor. Another disadvantage of this method is the possibility that the application may be copied before it is installed, and before a check word is created. Additionally, the check word can be easily located, if it is separated from the application.

It is also known to use a copy protection mechanism for protecting software against copying, consisting of a challenge mechanism embedded in each protected item of software. The challenge mechanism has no access to the customer's private keying material. In operation, the challenge mechanism sends a random challenge to the customer's signature server. The signature server signs the challenge, using the customer's private keying material and them returns the signed challenge to the challenge mechanism. The challenge mechanism then verifies the signed challenge, using the customer's public keying material, and prohibits the customer from using some or all of the protected item of software unless the verification is successful. The mechanism permits every customer to receive an identical copy of the copy protected program with the embedded challenge mechanism. The disadvantages of this method include not sending a specifically dedicated version of the software to the customer, but rather the customer receives a template version which will function with many different codes making it easier to violate the copy-protection.

In regard to mobile phones and cellular communications in general, it is known to download copy-protected software applications to the mobile station from a server via a wireless network. However, any required unlocking codes are not provided automatically in the art, but rather require the user to make a separate contact or transaction with the manufacturer to receive the unlocking codes. Then, the user must install the unlocking codes in the software application and/or mobile station. These steps are time consuming and

inconvenient for users. Wireless mobile station users also do not like to spend relatively long periods of time accessing wireless networks due to battery limitations of mobile stations, fees associated with air time, and potential for connections being dropped during downloading. Therefore, there is a need for timely and convenient downloading and verification processes which do not require active, difficult, or time consuming, user participation. Therefore, from a user's point of view, the capability to run a new application immediately after downloading is of paramount importance.

It is also known to use a method for checking the compatibility of a mobile station and a functional unit such as an application. A reference code is calculated in the mobile station and the functional unit by using algorithms which use initial numbers given by the mobile station, and the results are compared in the mobile station. On the basis of the comparison it is concluded, whether or not to activate the functional unit. In order to carry out the check measures, a check message including preferably name of the mobile station manufacturer/agent International Mobile Station Equipment Identity (IMEI) code, the product code, the version data, and a random number, is transmitted to the functional unit. Then a response message including preferably name of the functional unit manufacturer/agent, serial number, text message indicated by the functional unit, version data, and reference code, is transmitted from the functional unit to the mobile station. The disadvantages of this system include requiring the user to separately continue with the time-consuming separate steps of

installation of any necessary application unlocking codes, as discussed above for example.

Therefore, in view of the prior art above, there is a need for dedicated software applications which prevent illegal copying from being useful and which can be downloaded directly to user stations such as a mobile station or a personal computer, via a network or via media, and which are immediately usable or executable only by that particular user station, such as a mobile station, without requiring the user to perform additional time-consuming and bothersome steps such as contacting the manufacturer for an unlocking code. There is also a need for eliminating contact between the manufacturer of application (or the manufacturer of the user stations) and the user when downloading or receiving new applications which is solved by having the user deal directly with a distributor such as an independent distributor who can provide services formally reserved for manufacturers only such as providing specific user stations codes. The invention envisions many potential distribution media and distribution structures for the applications including, but not limited to, wireless networks, magnetic or optical media, web-based www sites, .TAR files, .AOS files, personal computers, and smart cards.

SUMMARY OF THE INVENTION

According to the objects of the invention, the present invention ensures that an application downloaded or received from an application source is only useable by an authorized

user station. During the download process the application is dedicated, i.e., specifically configured, to only be useable by the specific user station which is identifiable to the application source via an identification code. The present invention also includes a method for directly downloading the application to the user station from an independent distributor rather than from the manufacturer.

Therefore, according to a first aspect of the invention a method of downloading copy protected dedicated applications to a user station from an application source is disclosed comprising the steps of: sending an order for an application to an application source the order comprising at least an unique identification information which identifies the user station and the user of the user station to the application source; upon identification, preparing a dedicated application by configuring a general application accessible to the application source to include the unique identification information specific to the user station; and downloading the dedicated application directly to the user station. The invention may also include the further step of: comparing the unique identification information to identify the user station to the application source by using a library of identification information accessible to the application source. The invention may also provide that before the step of downloading occurs, the steps occur of: saving the dedicated application to a location accessible by the user station and informing the user station that the dedicated

application is ready to be downloaded to the user station from the location. The invention may also include that the identification information includes time and date of dedicated application download information. The invention may also include that the dedicated application is a setup application. The invention may also include that the step of identifying identifies the user station for billing purpose. The invention may also include that the steps of sending the order, and downloading the dedicated application, occur via a wireless network. The invention may also optionally include that the identification information is checked by the user station every time the dedicated application is run.

According to a second aspect of the invention a method of directly automatically downloading copy protected applications from a distributor to a user station from an application source without requiring contact between a user of the user station and a manufacturer of the application is disclosed comprising the steps of: sending a template version of an application from a manufacturer to a distributor, the template version including a variable of known value; ordering an application from the distributor including automatically identifying the user station via a code specific to the user station; upon placing the order, automatically replacing the variable with the code specific to the user station to make the application a dedicated application which is copy protected, and which will only run on the user station with a matching code; and automatically downloading the dedicated application to the user station. The invention may also

include replacing the variable is performed by a binary patch method. The invention may also include that some or all of the steps are performed over a wireless network. The invention may also include that the step of ordering includes automatically checking the code against a library of authorization codes accessible to the distributor.

According to a third aspect of the invention, a system for ordering and downloading copy protected dedicated applications to a user station from an application source is disclosed, the system comprising: a user station that signals at least one unique identification code when placing an order; an application source responsive to the user station for receiving and checking the identification code for authentication purposes; an application including a variable set by a manufacturer of the application, said application responsive to: a command for substituting the identification code for the variable to create a dedicated application, to a command for sending the dedicated application to the user station, to a command for executing the dedicated application at the user station, and to a command for comparing and matching the identification code of the application to the identification code of the user station. The invention also discloses a library of identification codes accessible to the user station for providing comparison data to the user station when the user station checks the identification code signalled from the user station to the application source for authorization purposes. The invention also discloses a system of claim wherein the dedicated application has the additional

optional feature of: whenever the dedicated application is executed the identification code is checked. The invention also discloses that the application source may be located remotely from the manufacturer of the application.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a method of distributing a software application to a particular user station 6, in this case, a mobile station 10, according to the first aspect of the invention, in this case, in a network environment including the mobile station and an application source 7, which in this case is a server 30.

Fig. 2 is a diagram of a process for dedicating an application to a particular user station, in this case a mobile station.

Fig. 3 is a block diagram of a process for directly downloading a dedicated application to a customer from an independent distributor, according to the second aspect of the invention.

Fig. 4 is a block diagram of the preferred embodiment system for dedicating the application to the specific user station user.

BEST MODE FOR CARRYING OUT THE INVENTION

Fig. 1 shows a method of distributing an application to a particular user station according to the first aspect of the invention. It is understood that throughout this specification a user station 2 can be a mobile station, personal computer, a smart phone, or other communicator. The figure shows a user station as a mobile station 10, which uses a network 20 and an application source. It is understood that throughout this specification the application source can be a server in a network, a web based "www" site, an e-mail, a magnetic media such as a diskette, a memory card or other application medium. In this case the application source is a network server 30, and the mobile station 10 and server 30 communicate via network 20.

As seen in Figure 1, the method of the preferred embodiment includes the following steps. First, the mobile station 10 signals to the server 30 via the network 20 that it wants to connect to the server 30 as shown by reference numeral 1. Second, the server 30 signals to the mobile station 10 that a connection has been opened to the server 30 as shown by reference numeral 2. Third, the mobile station 10 signals to the server 30 that is placing an order for a new application by providing its identification information in the form of an identification code 12 as represented by reference numeral 3. The server 30 checks the code to determine if the mobile station is an authorized mobile station and if the mobile station is authorized, the process proceeds to step four, although it is emphasized that this checking step is not an absolute requirement. Fourth, the server begins a

dedication process 4 of the application to create a dedicated application 40 which is not useful if illegally copied because it includes identification code 12. Fifth, a dedicated application 40 is automatically downloaded to the mobile station 10 from the server 30 in an executable format as seen at reference numeral 5. Thus, an application stored in the server 30, or at least accessible to server 30, is configured by the server to be a dedicated application 40 and may be automatically delivered to the mobile station 10 at reference numeral 5. The dedicated application 40 will only function with the specific mobile station 10 which provides a matching identification code 12 specific to the mobile station 10. As a further optional step, the dedicated application 40 now residing in the mobile station 10 may continually check and match the identification code 12 every time the application is executed although it is emphasized that this continued against the code checking step is not an absolute requirement. In summary, the mobile station 10 is able to order and download or receive a newly created dedicated application 40 directly from the server 30 by providing unique identification information which is incorporated into the newly created dedicated application 40.

Fig. 2 shows in greater detail the preferred embodiment method of dedicating an application to the specific mobile station 10 shown in Fig. 1. As previously described, it is assumed the mobile station 10 has placed an order 3 for an application with the server 30. The order 3 contains an identification code 12 for the mobile station 10 or for associated equipment such as a SIM card (not shown). The code

may be formatted in many different formats. For example, the code may be, but is not limited to, an IMEI (International Mobile Station Equipment Identity) code, an ESN (Electronic Serial Number) code, or a SIM (Subscriber Identity Module) code. Once the order 3 is received by the server 30, and the identification code 12 is authorized via a standard authorization process (not shown), the server 30 begins dedicating the application 35 stored in the server 30, or at least accessible to the server 30 by using an algorithm 25 which adds the identification code 12 to the application 35. The identification code may also include information stating the time and date of placing the order 3 and/or the time of delivery or downloading. Once the application 35 has been configured to be a dedicated application 40 by the addition of identification code 12, the server 30 may send or download the dedicated application 40 to the mobile station 10 as seen in Fig. 1 at step 5. Optionally, as seen in Figure 4, the mobile station 10 checks, at step 100, the identification code 12 in the dedicated application 40 by comparing it to the identification code 12 of the mobile station 10 when the dedicated application 40 is used or executed for the first time by the mobile station 10. An additional option is that the mobile station 10 may continually check the identification code 12 every time in the future the dedicated application 40 is run. Thus, the method enables dedicated applications 40 which are only useful to the particular mobile station 10. Therefore, if dedicated application 40 is somehow copied, it will not run on another mobile station. Thus, the dedicated

application 40 is considered to include copy-protection measures.

Fig. 3 shows an additional method of the present invention wherein an independent distributor 60 distributes dedicated application 40 of the present invention to mobile station 10 without requiring mobile station 10 or its user (not shown) to contact the application manufacturer 70. In this method, first a manufacturer 70 develops the application 35. The application 35 is in a general template format. The independent distributor 60 is sent the template application 65 and awaits an order from mobile station 10 used by a customer. Thus, the mobile station 10 can order 3 a new dedicated application 40 by first signaling the independent distributor 60 via the wireless network 20 or via other application sources, as discussed above. When an order 3 is placed by the mobile station 10 with the independent distributor 60, the mobile station 10 transmits an identification code 12 to the distributor 60, which as discussed above in connection with step 3 of Fig. 1 may be one of various formats. The identification code 12 is examined by the independent distributor 60, and if it is a proper identification code 12, the independent distributor 60 authorizes the downloading of the dedicated application 40. Before doing so, however, the dedicated application 40 of the present invention is configured to be specific to the mobile station 10, or associated equipment such as a SIM card (not shown), by including the identification code 12 in the application 40. The identification code 12 replaces a variable 55 (see Fig. 4 at step 66) which was included with the template application

65 from the manufacturer 70. The identification code 12 may be inserted into the template 65 to replace the variable 55 by a binary patch method or other method. Once the template 65 is configured for the particular mobile station 10, the independent distributor 60 sends the dedicated application 40 of the present invention to the mobile station 10 whereupon the dedicated application 40 is automatically executable by the mobile station 10. This method enables the customer possessing the mobile station 10 to directly download a new application 35 which is configured to be a dedicated application 40 specific to the customer's mobile station 10. The dedicated application 40 is ready to use when it is received by the mobile station 10. An optional step of further checking of the identification code may be performed at step 100. Another additional step of checking may be executed by the mobile station 10 whenever the application is executed in the mobile station 10, as described in detail in below reference to Fig. 4. In this manner, the user of the mobile station 10 does not have to contact the original manufacturer 70 or experience any delay in running the dedicated application 40. This is because the entire process described above may be automated at the independent distributor 60 level or server 30 level.

Fig. 4 shows the method of Fig. 3 in more detail. Fig. 4 also shows the system of the third aspect of the invention. The manufacturer 70 provides a template application 65 with a variable 55 to the server 30. The server 30 may be located at the manufacturer 70 or at an independent distributor 60. In the preferred embodiment the server 30 is located at the

independent distributor 60 which is the server 30. Therefore, in Fig. 4, the independent distributor 60 is shown to encompass the server 30 and is located remotely from manufacturer 70. Server 30 at step 64 stores template application 65 with variable 55 and awaits an order 3 from mobile station 10 for a dedicated application 40 (see Fig. 3). Mobile station 10 contacts server 30 and sends identification code 12 (see Fig. 3) to server 30. Server 30 includes a library 80 of codes which is optionally used to check at step 81 the identification code 12 for authentication purposes. Next, server 30 at step 66 replaces the variable 55 with the identification code 12 in the template application 65 at step 66 using an algorithm 67. This configures the template application 65 to become dedicated application 40. The dedicated application 40 is then downloaded to mobile station 10 directly at step 41. The downloaded application 40 is formatted to be ready to run by mobile station 10. Optionally, in the future, every time the mobile station 10 wants to use or execute the dedicated application 40, the mobile station 10 may optionally check and match its identification code 12 against the identification code of dedicated application 40. The dedicated application 40 is located in the mobile station 10 after downloading.

The invention also envisions that in any embodiment before a step of downloading or sending occurs, the steps occur of: saving the dedicated application to a location accessible by the user station and informing the user station

that the dedicated application is ready to be downloaded to the user station from the location.

The invention also envisions that in any embodiment the step of ordering can be performed by, and from, any device, and not necessarily from the user station which will receive the dedicated application, so long as the identification information for the user station (for example an IMEI code) and or the user of the user station (for example, SIM code,, phone number, name, social security number, credit card number, or other id information) is provided to the application source.

Therefore, although the invention has been described with respect to a preferred embodiment thereof, it will be understood by those skilled in the art that the foregoing and various other changes, omissions and deviations in the form and detail thereof may be made without departing from the spirit and scope of this invention.

What is claimed is:

1. A method of downloading copy protected dedicated applications to a user station from an application source comprising the steps of:

sending an order for an application to an application source the order comprising at least an unique identification information which identifies the user station and the user of the user station to the application source;

upon identification, preparing a dedicated application by configuring a general application accessible to the application source to include the unique identification information specific to the user station; and

downloading the dedicated application directly to the user station.

2. The method of claim 1 including the further step of:

comparing the unique identification information to identify the user station to the application source by using a library of identification information accessible to the application source.

3. The method of claim 1 wherein:

before the step of downloading occurs, the steps occur of: saving the dedicated application to a location accessible by the user station and informing the user station that the dedicated application is ready to be downloaded to the user

station from the location.

4. The method of claim 1 wherein:
the identification information includes time and date of dedicated application download information.

5. The method of claim 1 wherein:
the dedicated application is a setup application.

6. The method if claim 1 wherein:
the step of identifying identifies the user station for billing purposes;

7. The method of claim 1 wherein:
the steps of sending the order, and downloading the dedicated application, occur via a wireless network.

8. The method of claim 3 wherein:
the identification information is checked by the user station every time the dedicated application is run.

9. A method of directly automatically downloading copy protected applications from a distributor to a user station from an application source without requiring contact between a user of the user station and a manufacturer of the application comprising the steps of:

sending a template version of an application from a manufacturer to a distributor, the template version including a variable of known value;

ordering an application from the distributor including automatically identifying the user station via a code specific to the user station;

upon placing the order, automatically replacing the variable with the code specfic to the user station to make the application a dedicated application which is copy protected, and which will only run on the user station with a matching code; and

automatically downloading the dedicated application to the user station.

10. The method of claim 9 wherein:

replacing the variable is performed by a binary patch method.

11. the method of claim 9 wherein:

the steps are performed over a wireless network.

12. The method of claim 9 wherein:

the step of ordering includes automatically checking the code against a library of authorization codes accessible to the distributor.

13. A system for ordering and downloading copy protected dedicated applications to a user station from an application source, the system comprising:

a) a user station that signals at least one unique identification code when placing an order;

b) an application source responsive to the user station for receiving and checking the identification code for authentication purposes;

c) an application including a variable set by a manufacturer of the application, said application responsive to: a command for substituting the identification code for the variable to create a dedicated application, to a command for sending the dedicated application to the user station, to a command for executing the dedicated application at the user station, and to a command for comparing and matching the identification code of the application to the identification code of the user station.

14. The system of claim 13 further comprising:

a library of identification codes accessible to the user station for providing comparison data to the user station when the user station checks the identification code signalled from the user station to the application source for authorization purposes.

15. The system of claim 13 wherein the dedicated application has the additional feature of:

whenever the dedicated application is executed the identification code is checked.

16. The system of claim 13 further comprising:

the application source is located remotely from the manufacturer of the application.

Abstract

The present invention is directed to a copy-protected dedicated software application and methods for downloading copy-protected dedicated applications to user stations so that the unique dedicated applications are executable upon downloading to the user station and so that the unique dedicated applications will only run on that particular authorized user station. A method of downloading the unique dedicated applications directly from a distributor to the user station is also included which eliminates the need for contact between the original manufacturer of an application and the user station.

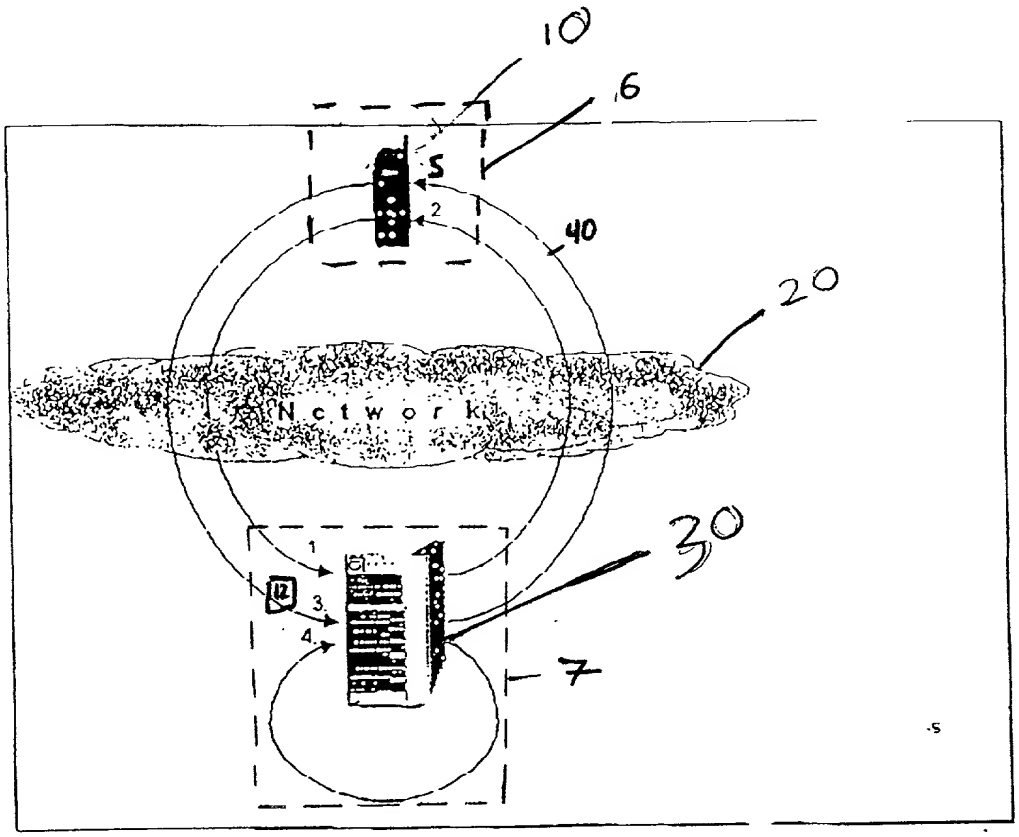


FIG. 1

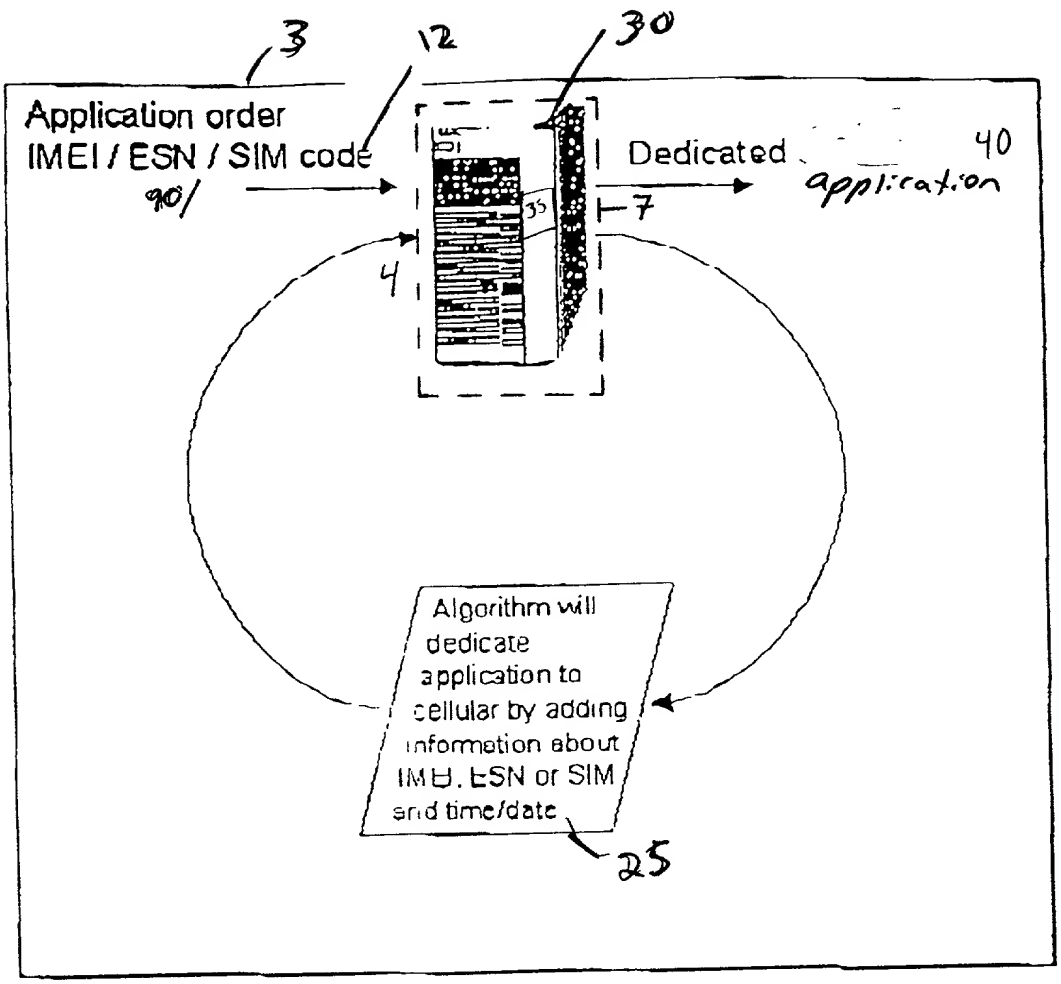

3
12
30
Application order
IMEI / ESN / SIM code
90
Dedicated
40
application
7
4
Algorithm will dedicate application to cellular by adding information about IMEI, ESN or SIM and time/date
25

FIG. 2

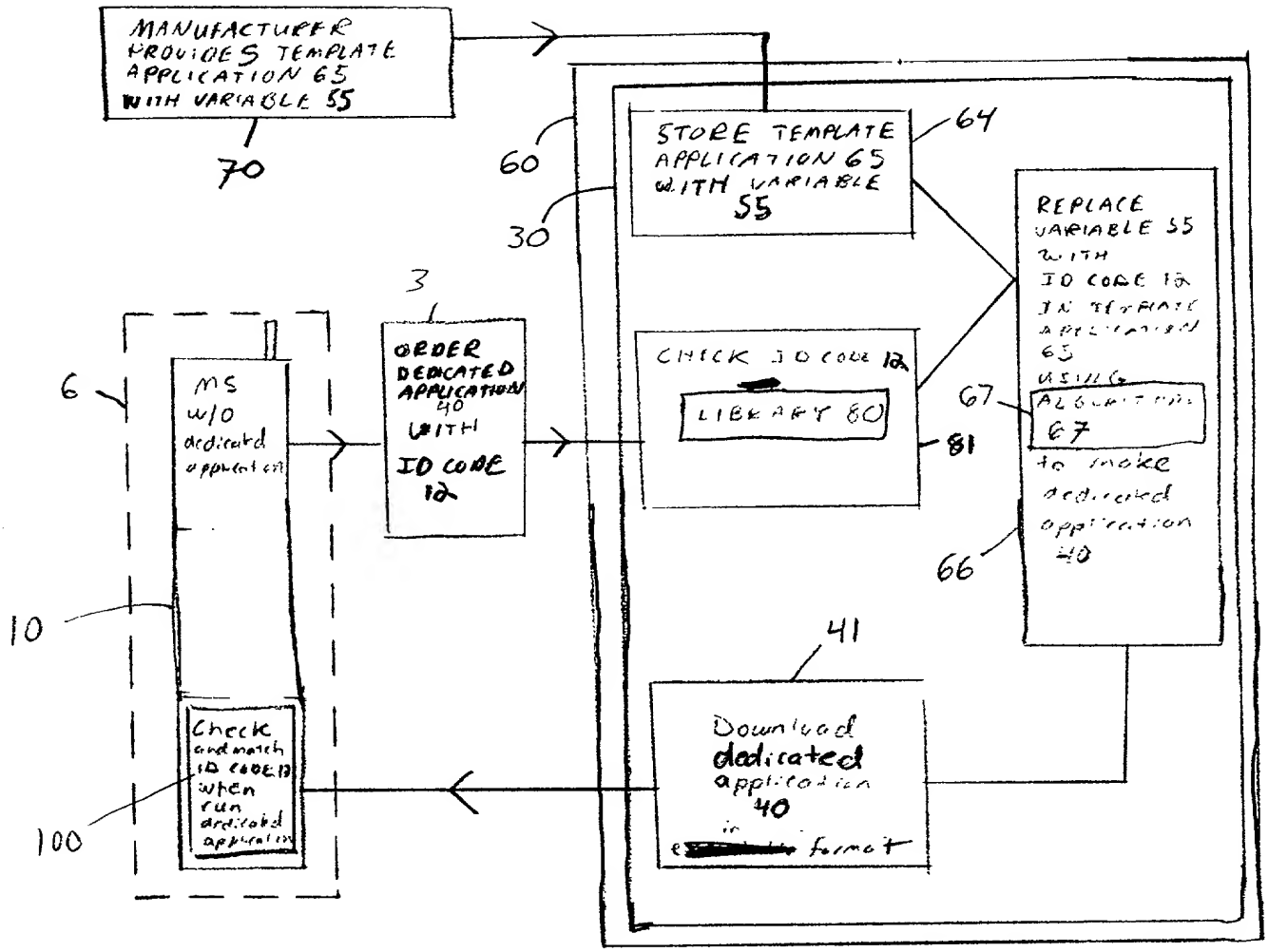

MANUFACTURER PROVIDES TEMPLATE APPLICATION 65 WITH VARIABLE 55
70
60
30
STORE TEMPLATE APPLICATION 65 WITH VARIABLE 55
64
REPLACE VARIABLE 55 WITH ID CODE 12 IN TEMPLATE APPLICATION 65 USING
67
ALGORITHM 67
to make dedicated application 40
66
3
ORDER DEDICATED APPLICATION 40 WITH ID CODE 12
CHECK ID CODE 12
LIBRARY 60
81
6
MS w/o dedicated application
10
Check and match ID CODE 12 when run dedicated application
100
41
Download dedicated application 40 in [redacted] format

FIG. 4

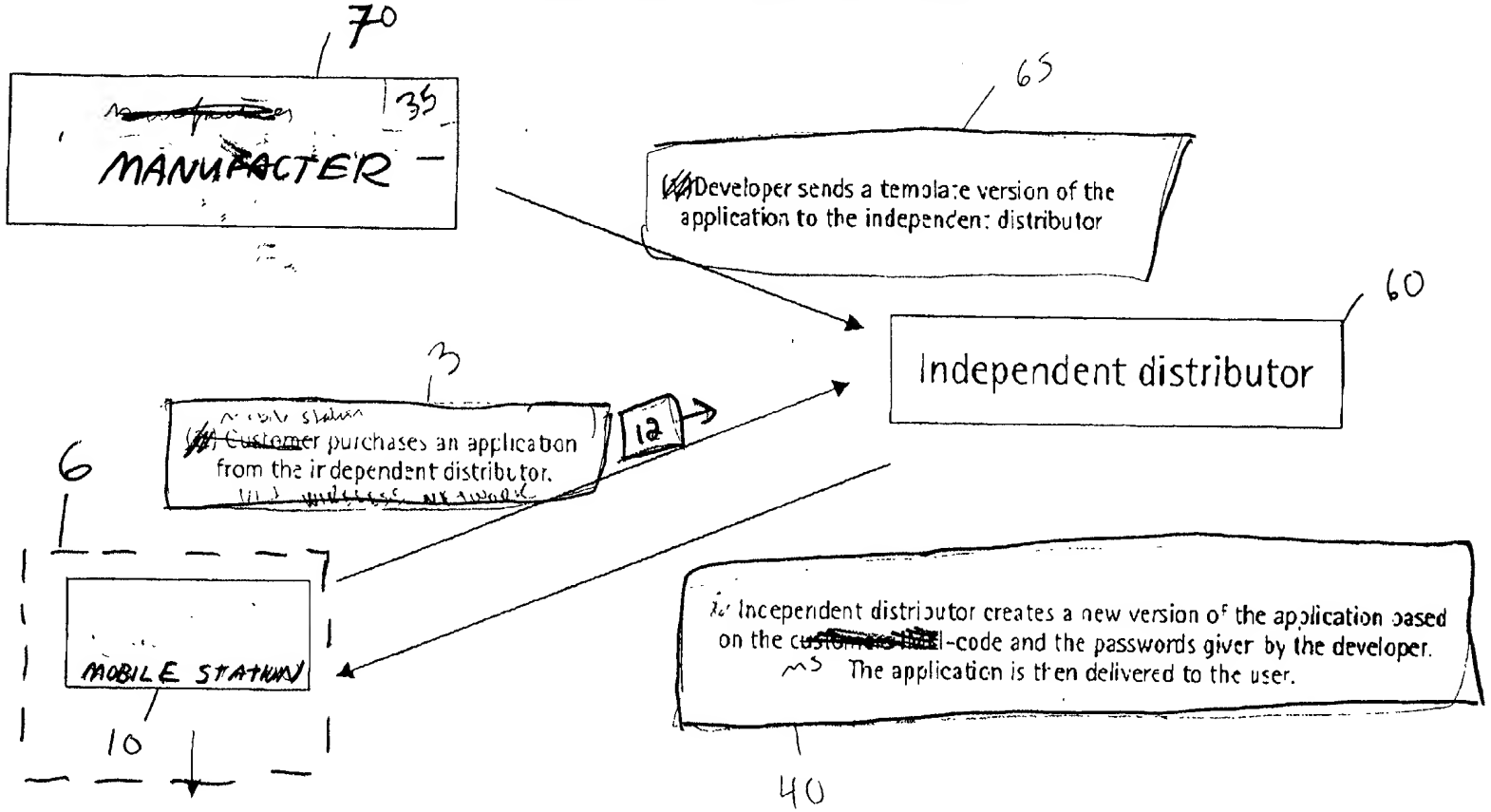

70
35
MANUFACTER
65
Developer sends a template version of the application to the independent distributor
60
Independent distributor
3
Customer purchases an application from the independent distributor.
12
6
MOBILE STATION
10
Independent distributor creates a new version of the application based on the customer-code and the passwords given by the developer.
The application is then delivered to the user.
40

FIG. 3